

**FIRST RECORDS OF ALIEN INSECTS IN CONNECTICUT  
(ORTHOPTERA: TETTIGONIIDAE; COLEOPTERA: BUPRESTIDAE,  
CHRYSOMELIDAE; DIPTERA: RHAGIONIDAE, TEPHTRITIDAE;  
HYMENOPTERA: MEGACHILIDAE)**

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*Abstract.*—Entomologists, nursery inspectors, and others have repeatedly discovered exotic insects new to Connecticut. Here, I report the first captures and distribution of eight non-native species in Connecticut: *Meconema thalassinum* (De Geer) (Orthoptera: Tettigoniidae), *Agrilus cyanescens* (Ratzeburg) (Coleoptera: Buprestidae), *Lilioceris lili* (Scopoli), *Pyrrhalta viburni* (Paykull) (Coleoptera: Chrysomelidae), *Rhagio tringarius* (L.) (Diptera: Rhagionidae), *Rhagoletis meigenii* (Loew) (Diptera: Tephritidae), *Anthidium manicatum* (L.), and *Megachile sculpturalis* Smith (Hymenoptera: Megachilidae). Based on the weekly capture of adults in a Gressitt and Gressitt Malaise trap in northern Connecticut in 2003, *Rhagio tringarius* flew from mid-July to mid-September, although adults were collected earlier and later elsewhere in the state. In the same trap samples, females of *Rhagoletis meigenii* were captured mainly in July, with a few taken in August. In the laboratory, adults of *Rhagoletis meigenii* were reared from fruits of *Berberis thunbergii* De Condolle (Berberidaceae) sampled in Connecticut and New York in the fall of 2003, confirming that this species develops in congeneric hosts in Europe and North America.

*Key Words:* distribution, exotic insects, *Meconema thalassinum*, *Agrilus cyanescens*, *Lilioceris lili*, *Pyrrhalta viburni*, *Rhagio tringarius*, *Rhagoletis meigenii*, *Anthidium manicatum*, *Megachile sculpturalis*

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Connecticut has a long history of coping with pestiferous insects accidentally introduced from foreign countries. Factors that have favored the arrival and establishment of exotic insects in the state include the presence of ports-of-entry, importation of varied products from around the world, a well-traveled populace, and a climate moderated by the ocean in coastal areas. During the past decade, entomologists, nursery inspectors, and others have detected several potentially important orchard or forest pests in Connecticut, including the small Japanese cedar longhorned beetle, *Callidiellum*

*rufipenne* (Motschulsky) (Cerambycidae) (Maier and Lemmon 2000, Maier 2001); the spruce needleminer, *Batrachedra pini-collella* (Zeller) (Batrachedridae) (Maier 2005a), the apple tortrix, *Archips fuscocupreanus* (Walsingham) (Tortricidae) (Maier and Mastro 1998, Maier 2003); and the green pug, *Pasiphila rectangulata* (L.) (Geometridae) (Maier 2005b). Here, I report additional alien insects detected during other surveys in the state. Many of these foreign species should be targeted for future surveys to determine their economic status in North America.

## MATERIALS AND METHODS

The following information is given for adults of exotic insects collected or reared in Connecticut: county, town (municipality), precise location (if available), date(s) of capture, number of specimens (or number of each sex for Tettigoniidae, Rhagionidae, Tephritidae, and Megachilidae) in parentheses, collecting method if not netted or captured by hand, and the location of vouchers that are not deposited at the Connecticut Agricultural Experiment Station (CAES). Generally, the collection data are organized alphabetically by county, then by town, and lastly by year of capture. Information that did not appear on labels, but was added for clarity, is given in brackets. All dates listed under new records are given in the same format, with the month in lower case roman numerals (e.g., 17.vi.2004). To save space, the following abbreviations are used for trapping methods mentioned more than once: AMB, unbaited yellow Pherocon® apple maggot, *Rhagoletis pomonella* (Walsh), (Trécé Inc., Adair, OK 74330) sticky trap on Japanese barberry, *Berberis thunbergii* De Condolle; GGM, Gressitt and Gressitt (1962) Malaise trap (John W. Hock Co., Gainesville, FL 32606) in a forest; GGMO, Gressitt and Gressitt Malaise trap at border of an apple, *Malus domestica* Borkhausen, orchard and a deciduous forest; RSA, red sticky trap (Great Lakes IPM, Vestaburg, MI 48891) on the trunk of live white ash, *Fraxinus americana* L.; SBA, 46-cm wide sticky band on girdled trunk of white ash in forest; SC, Sante canopy trap (Sante Traps, Lexington, KY 40502) at ground level in eastern white pine, *Pinus strobus* L.-white ash forest; SCS, Sante canopy trap at ground level in swamp with deciduous trees and shrubs; and SM, Sante Malaise trap (Sante Traps) in an old eastern white pine-spruce, *Picea* sp., plantation.

Maier (1984) and Maier and Webb (1987) discussed the use of Gressitt and Gressitt Malaise traps that were used to capture insects between 1980 and 1985.

Other Gressitt and Gressitt Malaise traps operated for lengthy periods and checked once or twice weekly were situated at the border of an apple orchard and deciduous forest in Guilford, New Haven Co., from May to October 1995–1997 and in Meriden, New Haven Co., over the same months in 1996. In 2003, a Gressitt and Gressitt Malaise trap placed in a calcareous swamp in Canaan, Litchfield Co., was checked weekly from May to September to determine the flight period of the two exotic flies mentioned herein. The two kinds of Sante traps and the sticky bands on girdled ash trees were checked weekly from early April to late October 2004 during a survey for the exotic emerald ash borer, *Agilus planipennis* Fairmaire. In the same survey, red sticky traps were inspected every 7–10 days between May and September 2004. All of the sticky bands and colored traps were coated with Tangle-trap insect trap coating (The Tanglefoot Co., Grand Rapids, MI 49504).

In addition to sampling with traps, I examined insect collections in the Department of Entomology, Connecticut Agricultural Experiment Station, New Haven; in the Yale Peabody Museum, New Haven (YPM); and in the University of Connecticut, Storrs (UCONN). One specimen cited here was donated to the Illinois Natural History Survey, Champaign, Illinois (INHS). Some records are based on specimens in the private collections of Chris T. Maier (CTM), Guilford, and Michael C. Thomas (MCT), Cromwell, Connecticut.

To confirm that larvae of North American populations of *Rhagoletis meigenii* (Loew) develop in fruits of *Berberis*, 200 fruits of *B. thunbergii* were sampled in Canaan, Connecticut, on 10 September 2003, and 500 fruits of the same barberry were collected in Highlands, Orange Co., New York, on 11 September 2003. In the laboratory, barberries from each sample were placed on a screen over a container with moist sand and vermiculite (1:1) for one month to allow larvae to emerge from

fruits and to form puparia in the mixture below. Then, the mixture with puparia was sealed in a plastic container and refrigerated at  $4 \pm 1^\circ\text{C}$  for five months; afterward, the container was returned to the laboratory where adult flies emerged within two months.

## RESULTS AND DISCUSSION

### *Meconema thalassinum* (De Geer)

(Orthoptera: Tettigoniidae)

This European tettigoniid, commonly known as the oak-bush cricket, has been in North America since at least 1957 when it was discovered on Long Island, New York (Gurney 1960a, 1960b). Since then, Johnstone (1970), Sismondo (1978), Smith (1979), and Hoebeke (1981) have reported *M. thalassinum* in other parts of New York or in Rhode Island. This nocturnal tettigoniid eats other small insects (Marshall and Haes 1990).

In a mesic deciduous forest in Hamden, New Haven Co., I collected the first two specimens (both males) of *M. thalassinum* in a Gressitt and Gressitt Malaise trap in 1980. Subsequently, I have captured adults of *M. thalassinum* in seven of eight Connecticut counties, indicating that it is widespread (Fig. 1). Sticky bands or traps on the trunks of upright trees captured 21 of 34 (61.8%) specimens, and flight interception traps caught 9 (26.5%). Adults were captured between 10 July and 9 September.

New state records.—Fairfield Co., Fairfield, near jct. Hoyden Hill Road and Hoydens Lane, 10–16.vii.2004 (4 ♂), SBA. Hartford Co., Farmington, 1 km W jct. State Route 4 and Hawley Road, 23–29.vii (1 ♀), 30.vii–5.viii (1 ♂), and 6–12.viii.2004 (2 ♀), SBA. Litchfield Co., Barkhamsted, 0.8 km NNE jct. State Routes 219 and 318, 13–19.viii (2 ♀) and 27.viii–2.ix.2004 (1 ♀), SBA; Litchfield, 0.8 km NNE jct. State Route 118 and E. Litchfield Road No. 2, 10–16.viii.2004 (1 ♂), RSA; Torrington, Drakeville, State Route 272 by Stillwater Pond, 10–16.viii.2004 (1 ♂),

RSA. Middlesex Co., Cromwell, State Route 372, near 75 Cromwell Executive Ctr., 5–11.viii.2004 (1 ♂), RSA; Middletown, near Dooley Pond, 27–28.viii.2002 (1 ♀), Sante canopy trap among eastern red cedars, *Juniperus virginiana* L., in shrubby area on dry hillside, CTM. New Haven Co., Guilford, 4 km NNW jct. State Routes 77 and 80, near Beaver Head Corner, 7.ix.2001 (1 ♀), GGM, CTM, 3–9.ix.2004 (1 ♀), SBA; Guilford, 4 km NNW jct. State Routes 77 and 80, edge of Beaver Head Swamp, 29.vii.2002 (1 ♀), GGM; Guilford, 4.5 km NW jct. State Routes 77 and 80, 890 Beaver Head Road, 21.viii.2004 (1 ♂); Hamden, 1 km NW jct. State Routes 10 and 40, Lockwood Farm, 18–19.vii.1980 (2 ♂), GGM, CTM [**first state record**], 14.vii.2004 (1 ♂, 1 ♀); Hamden, 0.7 km WSW jct. State Routes 10 and 22, 25.vii–2.viii.2004 (1 ♂), SBA; Naugatuck, 0.3 km S jct. Hunters Mountain and Old Derby Roads, 14–20.vii (2 ♂) and 10–16.viii.2004 (1 ♂), SBA; New Haven, exit 8 (Middletown Avenue) of Interstate Highway 91, 16–22.vii.2004 (1 ♂), RSA; Wallingford, Wharton Brook State Park, 27–29.vii (1 ♂), 30.vii (1 ♂, 1 ♀), and 9–11.viii.2002 (1 ♂), GGM, CTM. New London Co., Waterford, Civic Triangle, 4–10.viii.2004 (1 ♀), RSA. Windham Co., Ashford, Natchaug St. Forest, 0.3 km W jct. Perry Hill Road and Laurel Lane; 20.viii.2004 (1 ♀), CTM.

### *Agrilus cyanescens* (Ratzeburg)

(Coleoptera: Buprestidae)

Records, mostly under the synonym *Agrilus coeruleus* (Rossi), reported by Frost (1922), Fisher (1928), Wellso et al. (1976), Bright (1987), Davies (1991), and Sikes (2004) indicate that this European buprestid occurs in Ontario, Quebec, Wisconsin, Michigan, Massachusetts, and Rhode Island. Frost (1922) mentioned that the earliest North American specimen was taken in Sturgeon Bay, Wisconsin, in July 1920.

I captured the first Connecticut specimen on 12 June 2003, although I had seen adults

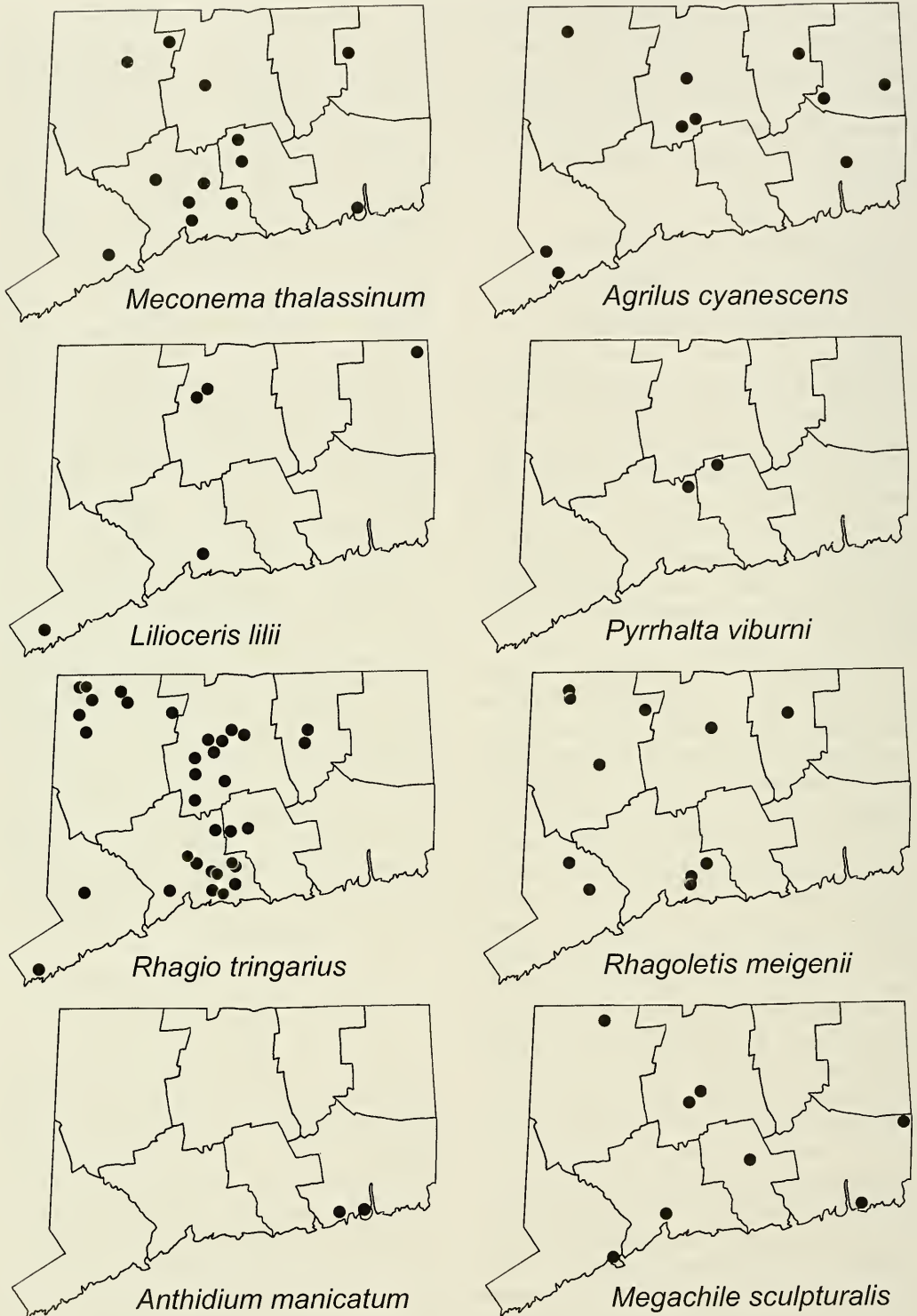


Fig. 1. Distribution of *Meconema thalassinum*, *Agrilus cyanescens*, *Lilioceris lili*, *Pyrrhalta viburni*, *Rhago tringarius*, *Rhagoletis meigenii*, *Anthidium manicatum*, and *Megachile sculpturalis* in Connecticut. The distributional map for *L. lili* also shows the reported occurrence in southwestern Connecticut (Fairfield Co.).

of *A. cyanescens* at least two years earlier during a local bioblitz. More adults were collected at other locations during 2003 and 2004 (Fig. 1). I suspect more specimens, perhaps earlier ones than those documented here, will be found in out-of-state collections that have yet to be examined. In Connecticut, capture dates ranged from 10 May to 8 July. In my collection, I also have specimens that were captured on the foliage of honeysuckle, *Lonicera* sp. (Caprifoliaceae) in Mercer Co., Pennsylvania (two adults), and in York Co., Maine (three adults), during 2003.

In Europe, larvae of *A. cyanescens* develop in galleries under the bark of *L. nigra* L. and other *Lonicera* spp. (Bright 1987, Rejzek 2001). Literature summarized by Bright (1987) and Rejzek (2001) gives 14 other genera as hosts, but, until these records are confirmed, they must be considered dubious. Although I have observed adults of *A. cyanescens* feeding on the foliage of *Lonicera* spp., larval hosts have yet to be identified definitively in North America.

New state records.—Fairfield Co., Westport, near jct. State Routes 33 and 136, 10.v.2004 (1); Wilton, jct. U.S. Highway 7 and State Route 33, near Norwalk River, 8.vii.2003 (3), CTM. Hartford Co., Berlin, Shuttle Meadow Avenue, 8.vi.2004 (2), CTM. Hartford Co., Farmington, 1 km W jct. State Route 4 and Hawley Road, 10.vi.2004 (1). Litchfield Co., Canaan, 1 km NNE jct. Belden and Sand Roads, Robbins Swamp, 12.vi.2003 (3), on foliage of *Lonicera morrowii* Gray [**first state record**]. New London Co., Preston, 0.5 km NW jct. State Routes 2A and 12, 17.v.2004 (1), CTM. Tolland Co., Willington, 1.2 km SW exit 70 (State Route 32) of Interstate Highway 84, 25.v.2004 (2), CTM. Windham Co., Killingly, exit 91 (U.S. Highway 6) of Interstate Highway 395, 25.v.2004 (1), CTM; Windham, Willimantic, 1 km SW jct. U.S. Highway 6 and State Route 32, 25.v.2004 (1), CTM.

*Lilioceris lili* (Scopoli)

(Coleoptera: Chrysomelidae)

In North America, the lily leaf beetle, *L. lili*, was found first in Montreal, Canada, in 1945 (Brown 1946, LeSage 1983). The first find in the United States was at Boston, Massachusetts (Livingston 1996). In Connecticut, this chrysomelid was first reported from Fairfield Co. (Ellis 2001), but this record has not been published formally, and specimens have been discarded. This Eurasian beetle apparently now occurs in all New England States, in northern New York (University of Rhode Island Plant Sciences Department 2002), and in Ontario and Quebec (LeSage 1991). Livingston (1996) and Haye and Kenis (2004) summarized the life history, noting that larvae and adults mainly feed on *Lilium* spp. and *Fritillaria* spp. (Liliaceae).

An adult specimen of *L. lili* was taken on an unidentified lily in Simsbury, Hartford Co., on 4 August 2001. This beetle represents the first state record based on an existing voucher. In addition to the 2001 specimen, a few adults have been collected at other Connecticut localities (Fig. 1). In 2004, I observed more than 50 larvae feeding on unidentified lilies growing at The Arnold Arboretum, Jamaica Plain, Suffolk Co., Massachusetts, and later collected an adult.

New state records.—Hartford Co., Simsbury, 5 Gretel Lane, 4.viii.2001 (1), on unidentified lily [**first state record with voucher**]; Simsbury, Simecroft Road, 28.vii.2003 (1), on unidentified lily. New Haven Co., East Haven, 25.iv.2004 (3), on unidentified lily, 1.v.2004 (2), on unidentified Asian lily. Windham Co., Thompson, Quaddick Road, 21.vii.2004 (15), feeding on unidentified Asian lily.

*Pyrrhalta viburni* (Paykull)

(Coleoptera: Chrysomelidae)

In North America, Becker (1979) documented (with specimens) the first reproducing population of the Eurasian viburnum

leaf beetle, *P. viburni*, at Ottawa, Ontario, and Hull, Quebec, where beetles were associated with *Viburnum* spp. (Caprifoliaceae) in 1978. Later, Wheeler and Hoebeke (1994) collected *P. viburni* in Nova Scotia, and they also reported it from British Columbia. In the United States, Weston and Hoebeke (2003) noted that it was detected first in Maine in 1994, and subsequently in New York, Pennsylvania, Ohio, and Vermont. Becker (1979) and Weston and Desurmont (2002) discussed its host preferences among *Viburnum* spp. grown in North America. Both larvae and adults feed on the foliage of viburnum.

My 2004 records (Fig. 1) represented beetles found on four cultivars of three species of *Viburnum*. These nursery plants were imported from New York, a beetle stronghold (Weston and Hoebeke 2003). Sampling in subsequent years will determine whether the accidental importation of *P. viburni* has produced an established population.

New state records.—Middlesex Co., Cromwell, Goodrich Heights, 21.vii.2004 (3), on foliage of container-grown *Viburnum opulus* L. 'Nanum' imported from New York. New Haven Co., Meriden, Yale Avenue, 8.vii.2004, on foliage of container-grown *Viburnum lantana* L. 'Mohegan' (2), *V. opulus* L. 'Roseum' (2), and *V. trilobum* Marshall 'Wentworth' (1) imported from New York [first state records]. Many beetles were observed at this last site, but only five were collected.

*Rhagio tringarius* (L.)

(Diptera: Rhagionidae)

Chillcott (1965) first reported the European *R. tringarius*, as well as *R. lineola* F., from eastern North America. At the time of his report, *R. tringarius* was known only from nine specimens collected by J. R. Vockeroth at Lockeport, Nova Scotia, in July 1958. Pechuman and Hoebeke (1983) later found a 1980 specimen from New York and a 1982 specimen from Massachu-

setts. Two other European species, *Rhagio scolopaceus* (L.) (Thompson 1969) and *R. strigosus* Meigen (Pechuman and Hoebeke 1983), also now inhabit eastern North America. *Rhagio scolopaceus* still has a viable population at The Arnold Arboretum, Jamaica Plain, Suffolk Co., Massachusetts, where I collected three males on 28 May 1999 and one female on 2 July 2004. Chillcott (1965) and others have suggested that the soil-inhabiting larvae of exotic rhagionids reached this country in the soil of imported plants.

In the Department of Entomology, CAES, there is a specimen of *R. tringarius* taken in Norfolk, Litchfield Co., Connecticut, on 13 July 1915 by M. P. Zappe. This specimen represents the earliest collection in North America. This record, predating by 43 years the previous "first record" (Chillcott 1965), suggests the possibility of other overlooked records in small, but very old, collections in the Northeast. Maier and Webb (1987) previously reported 16 species of rhagionids from Connecticut; the addition of *R. tringarius* brings the total to 17.

*Rhagio tringarius* is widespread in Connecticut (Fig. 1), where it has been particularly abundant since 1990. Between 1980 and 2004, I collected 270 specimens of *R. tringarius*, and only 7 of *R. vertebratus* and *R. hirtus* (two similar *Rhagio* spp. without distinct maculations in wings) in Connecticut; thus, among these three flies, *R. tringarius* accounted for 97.5% of all specimens. At Lockwood Farm of CAES (Hamden, New Haven Co.), a Gressitt and Gressitt Malaise trap operated in a mesic deciduous forest from April to September 1980–1983 caught no adults of *R. hirtus*, *R. tringarius*, or *R. vertebratus*, and another at Beaver Head Swamp (Guilford) checked during the same months of 1983–1985 captured only one *R. hirtus* (Maier and Webb 1987). A series of Malaise traps operated at the border of a sprayed apple orchard and deciduous forest in Guilford from May to September 1995–1997, and one operated at a field-orchard border in Meriden during

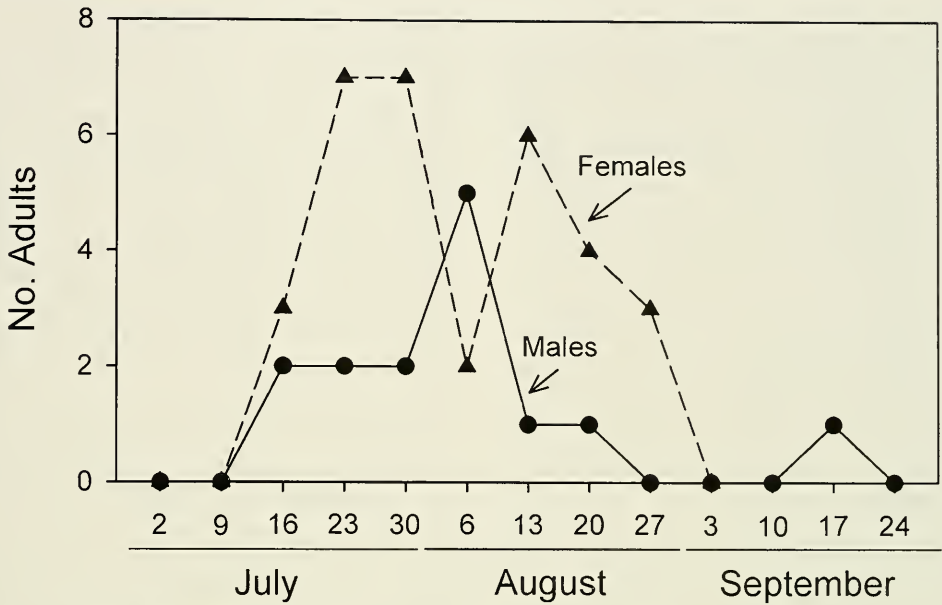


Fig. 2. Seasonal abundance of *Rhagio tringarius* in a calcareous swamp in northern Connecticut during 2003.

the same months in 1996, caught 63 adults of *R. tringarius* and none of the other large rhagionid species with unpatterned wings. Furthermore, in 2003, a Gressitt and Gressitt Malaise trap placed in a calcareous swamp (Canaan, Litchfield Co.) from late May to September intercepted 46 adults of only *R. tringarius*, with the flight concentrated in July and August for both sexes (Fig. 2). Although many adults of *R. tringarius* were caught on sticky bands on ash trees in 2004, their seasonal abundance was not plotted because many were eaten by slugs. In Connecticut, the earliest capture was between 28 May and 3 June (sticky band on white ash) and the latest was between 23 and 25 September (Gressitt and Gressitt Malaise trap).

In addition to Connecticut records, I collected one female of *R. tringarius* in Kennebunk, York Co., Maine, on 3 July 2003, and one female in Manchester, Bennington Co., Vermont, on 21 July 2004.

New state records.—Fairfield Co., Greenwich, Orchard St., 16.vi.1979 (1 ♀), uv light, YPM; Redding, Huckleberry

Swamp, 7.vii.1990 (1 ♂), 2.viii.1991 (1 ♀), CTM. Hartford Co., Farmington, Rattlesnake Mountain, 18.vi.2004 (1 ♂), CTM; Farmington, 1 km W State Route 4 and Hawley Road, 4–10.vi (1 ♀), 11–17.vi (2 ♂), 18–24.vi (4 ♂, 2 ♀), 25.vi–1.vii (4 ♂, 7 ♀), 2–8.vii (2 ♂, 11 ♀), 9–15.vii (1 ♂, 5 ♀), 16–22.vii (4 ♀), 23–29.vii (1 ♀), and 30.vii–5.viii.2004 (1 ♀), SBA; Hartford, Keney Park, 12.vi.1999 (1 ♀), CTM; Newington, Rt. 176, Roaring Brook Nature Center, 19.vii.1961 (1 ♀), UCONN; Southington, 3 km ESE jct. Interstate Hwy. 84 and State Route 10, Lewis Farms, 14.vi.2000 (3 ♂, 2 ♀), CTM; South Windsor, [Route] 291 site, 5.vi.2001 (1 ♀), UCONN; West Hartford, Albany Ave., 16.vii.1973 (1 ♂); West Hartford, Linbrook Road, nr. Trout Brook, 16.vii.1973 (1 ♀), UCONN; [West Hartford], Hartford Reservoir No. 6, 7.vii.1966 (1 ♂). Litchfield Co., Barkhamsted, 0.8 km NNE jct. State Routes 219 and 318, 28.v–3.vi (2 ♀), 16–22.vii (1 ♂, 1 ♀), 30.viii–5.viii (1 ♀), 6–12.viii (1 ♀), 20–26.viii (1 ♀), 27.viii–2.ix.2004 (1 ♀), SBA; Canaan, 1 km NNE jct. Belden and Sand Roads,

Robbins Swamp (see Fig. 2 for seasonal distribution of specimens caught in Malaise trap); Canaan, 0.2 km N jct. State Route 126 and Page Road, 19.vi.2003 (1 ♂); Norfolk, 13.vii.1915 (1 ♂) [**first North American record**]; Norfolk, 0.6 km W Westside and Windrow Roads, 18–20.viii.2003 (1 ♀); Salisbury, near Beeslick Pond, 8–10.viii.1989 (2 ♂), Gressitt and Gressitt Malaise trap in stand of eastern red cedar near shrubby calcareous fen, CTM; Salisbury, W side of Washinee Lake, 6.viii.1998 (1 ♀), Gressitt and Gressitt Malaise trap in calcareous fen, CTM; [Salisbury], Twin Lakes, M. A. White prop., 8/9.vii.1994 (1 ♂), UCONN; Sharon, 4 km N Cornwall Bridge, 27–31.viii.1984 (1 ♀), GGM, CTM. Middlesex Co., Middlefield, 0.3 km W South Street and Powder Hill Road, Lyman Farm, 18.vi.2001 (1 ♂, 2 ♀), CTM; Middletown, near Dooley Pond, 9.vi.1999 (1 ♂). New Haven Co., Branford, 30.vii.1985 (1 ♀); Branford, U.S. Highway 1, Hill Top Orchard, 12.vi.1991 (1 ♂), CTM; Guilford, 3 km S jct. State Routes 77 and 80, Bishop's Orchard, 4–6 August (1 ♀), 11–13.viii (1 ♀), 14–15.viii (1 ♀), and 16–17.viii.1995 (1 ♀), 2–4.vii (1 ♂, 2 ♀), 5–8.vii (1 ♂, 4 ♀), 12–15.vii (1 ♂), 16–18.vii (1 ♂), 23–25.vii (2 ♀), 26–29.vii (1 ♀), 30.vii–1.viii (4 ♀), 9–12.viii (1 ♀), 13–15.viii (2 ♀), and 23–26.viii.1996 (1 ♀), 17–19.vi (1 ♂), 1–3.vii (1 ♀), 4–7.vii (1 ♀), 8–10.vii (3 ♀), 22–24.vii (2 ♀), 29–31.vii (1 ♂), 5–7.viii (1 ♀), 15–18.viii (1 ♀), 29.viii–1.ix (1 ♀), and 23–25.ix.1997 (1 ♂), GGMO; Guilford, 4 km NNW jct. State Routes 77 and 80, edge of Beaver Head Swamp, 31.vii.2002 (1 ♀), CTM; Guilford, 4.5 km NW jct. State Routes 77 and 80, 890 Beaver Head Road, 14.vii.2003 (1 ♀), INHS; Hamden, 1 km NW jct. State Routes 10 and 40, Lockwood Farm, 14.vi (2 ♂) and 5.vii.1995 (5 ♂, 7 ♀), 24.vi.1996 (1 ♂, 1 ♀), CTM; Meriden, 1 km NNE jct. Thorpe Ave. and Fleming Rd., High Hill Orchard, 2–4.vii (3 ♀), 5–8.vii (1 ♂, 1 ♀), 9–11.vii (2 ♂, 3 ♀), 16–18.vii (1 ♂, 1 ♀), 19–22.vii (1 ♀), 23–25.vii (1 ♀), 30.vii–

1.viii (2 ♀), 2–5.viii (2 ♀), 13–15.viii (1 ♀), 23–26.viii (2 ♀), 27–29.viii (1 ♀), 30.viii–2.ix (2 ♀), 3–5.ix (1 ♀), 6–9.ix (1 ♀), and 13–16.ix.1996 (1 ♀), GGMO, 19.vi.1996 (1 ♀); North Branford, Totoket Mtn., 1.3 km NNE jct. State Routes 22N (Forest Road) and 80, 11.vi (1 ♂), 12–14.vi (1 ♂), and 25–26.vi.2002 (2 ♀), GGM, CTM; North Branford, 0.9 km NNW jct. State Route 80 and Great Hill Road, 18–24.vi (6 ♂, 5 ♀), 25.vi–1.vii (10 ♀), 2–8.vii (2 ♂, 7 ♀), 9–15.vii (5 ♂, 4 ♀), 16–22.vii (5 ♀), 23–29.vii (1 ♀), and 30.vii–5.viii.2004 (2 ♀); North Haven, 14.vii.1992 (1 ♀), 27.viii.1992 (1 ♂), uv light; Orange, 1 km NNW jct. State Route 34 and Dogburn Road, 25.vi–1.vii (3 ♀), 9–15.vii (1 ♀), 16–22.vii.2004 (1 ♂, 4 ♀), SBA. Tolland Co., Coventry, 0.5 km SE [U.S.] Rt. 44, 29.vii.2001 (1 ♀), UCONN; Tolland, 0.5 km SW jct. New and Grant Hill Roads, Kollas Orchard, 16.vi.1995 (1 ♀), CTM.

*Rhagoletis meigenii* (Loew)

(Diptera: Tephritidae)

Foote et al. (1993) noted that the widespread European species, *R. meigenii*, has been present in North America since at least 1986 when it was collected in New Hampshire. Specimens also are known from Maine and Nova Scotia (A. Norrbom, personal communication). In Connecticut, the first adult was hand-collected in Windsor, Hartford Co., 1998. Most subsequent ones were captured in Malaise or canopy traps, usually in mesic or wet forested areas where the likely host plants, *Berberis* spp., were common. This tephritid appears to be widespread in western and central Connecticut (Fig. 1).

In spring 2004, adults (18 ♂, 21 ♀) emerged from the mixture placed beneath fruits of *B. thunbergii* sampled in Connecticut in 2003. Similarly, adults (4 ♂, 7 ♀) were reared from fruits of *B. thunbergii* collected in New York in 2003. Therefore, this species uses congeneric larval hosts in both North America and Europe (Foote et al. 1993).



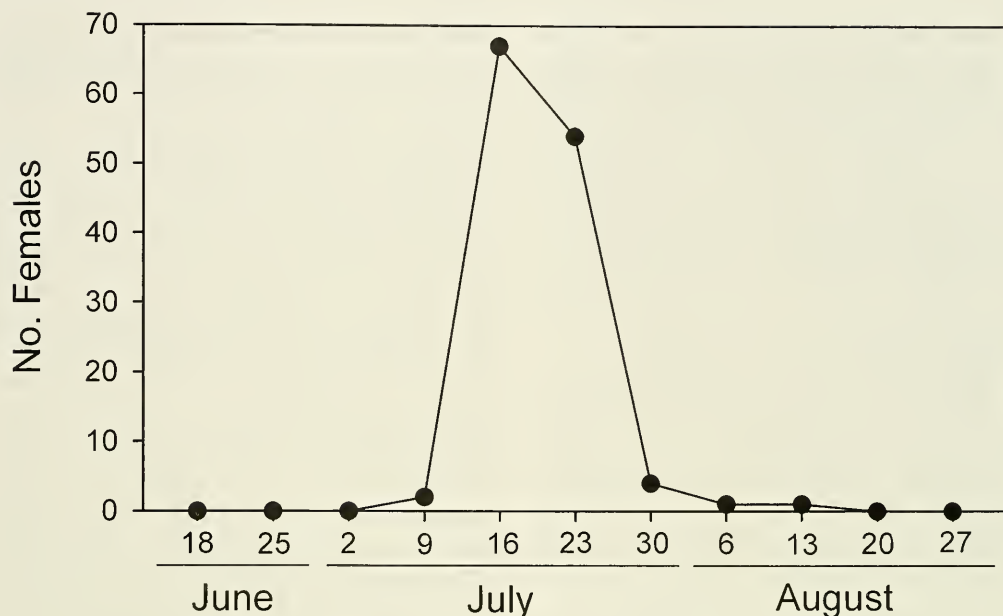


Fig. 3. Seasonal abundance of females of *Rhagoletis meigenii* in a calcareous swamp in northern Connecticut during 2003.

In a calcareous swamp in northern Connecticut, adults flew mainly in July, with a few specimens captured in August (Fig. 3). At Barkhamsted, Litchfield Co., the 14 females that were captured in a Sante Malaise trap flew between 2 and 29 July 2004.

New state records.—Fairfield Co., Monroe, Cutlers Farm Road, 10–14.vii.2004 (1 ♀), AMB; Newtown, Tory Lane, 10–14.vii.2004 (1 ♀), AMB. Hartford Co., Windsor, Valley Laboratory, Conn. Agric. Exp. Sta., 25.vi.1998 (1 ♀) [first state record]. Litchfield Co., Barkhamsted, 0.8 km NNE jct. State Routes 219 and 318, 2–8.vii (4 ♀), 9–15.vii (6 ♀), 16–22.vii (3 ♀), and 23–29.vii.2004 (1 ♀), SM; Canaan, Robbins Swamp, 1 km NNE jct. Belden and Sand Roads, Robbins Swamp (129 ♀), see Fig. 3; Canaan, 1 km S Falls Village, 10.ix.2004 (berry collection), chilled and reared to adults; Litchfield, White Memorial Conservation Center, 1–7.vii.2004 (1 ♂, 9 ♀), AMB. New Haven Co., Guilford, 3.8 km NNW jct. State Routes 77 and 80, near Beaver Head Swamp, 24.vii.2000 (1 ♀), 30.vi–1.vii (1 ♀) and 2.vii.2002 (1 ♀),

GGM; Guilford, 4 km NNW jct. State Routes 77 and 80, 9.vii.2000 (1 ♀), 29.vii.2002 (1 ♀), CTM; North Branford, Totoket Mtn., 1.3 km ENE jct. State Routes 22N and 80, 2–3.vii.2002 (1 ♀), GGM; North Branford, Totoket Mtn., 3 km NNE jct. State Routes 22N and 80, 10–12.vii.2001 (1 ♀), GGM, CTM; North Branford, 0.9 km NNW jct. State Route 80 and Great Hill Road, 2–8.vii.2004 (2 ♀), SBA. Tolland Co., Tolland, Nye-Holman St. Forest, 30.vi.2004 (3 ♀), GGM, CTM.

#### *Anthidium manicatum* (L.)

(Hymenoptera: Megachilidae)

This Old World bee has the largest distribution of any species of *Anthidium* (Hoebeke and Wheeler 1999), having accidentally been introduced into several continents. In North America, *A. manicatum* was recovered first in central New York in 1963 (Jaycox 1967). It subsequently has been found at new localities in New York, Pennsylvania, Michigan, Ohio, Ontario, and Quebec (Pechuman 1967, Severinghaus et

al. 1981, Smith 1991, Hoebeke and Wheeler 1999, Payette 2001, Miller et al. 2002). Although I found this adventive bee at only two locations in New London Co. in 2004 (Fig. 1), probably it is more widespread. In North America, adults are associated mainly with species of mints (Lamiaceae), although they sometimes use floral hosts in Asteraceae, Lythraceae, and Scrophulariaceae (Pechuman 1967, Hoebeke and Wheeler 1999, Miller et al. 2002).

New state records.—New London Co., East Lyme, near jct. State Route 156 and Liberty Way, 18.viii.2004 (1 ♂), CTM [**first state record**]; Waterford, Harkness Memorial State Park, 25.ix (1 ♀) and 2.x.2004 (1 ♂, 1 ♀), on blossoms of *Stachys byzantina* K. Koch, CTM.

*Megachile sculpturalis* Smith

(Hymenoptera: Megachilidae)

This eastern Asian bee, known as the giant resin bee, steadily has increased its range across eastern North America. Mangum and Brooks (1997) first discovered this cavity-nesting bee in North Carolina in 1994. Subsequently, Batra (1998), Kondo et al. (2000), Ascher (2001), and Mangum and Sumner (2003) reported it from another 14 states, the District of Columbia, and Ontario, Canada. Mangum and Sumner (2003) did capture *M. sculpturalis* in Connecticut in 2001, but here I report one taken at a different location nearly a year earlier and others at additional sites (Fig. 1). I also have observed adults that were hovering near large oaks, *Quercus* sp., at the Roger Williams Zoo, Providence, Providence Co., Rhode Island.

Ascher (2001) and Mangum and Sumner (2003) summarized the floral hosts used for foraging and male-patrolling. In Connecticut, *M. sculpturalis* used two additional floral hosts—sea-lavender, *Limonium carolinianum* (Walter) Britton (Plumbaginaceae), and goldenrod, *Solidago* sp. (Asteraceae).

New state records.—Fairfield Co., Stratford, Long Beach, 7.viii.2003 (1 ♂), prey

of asilid, *Proctacanthus rufus* Williston, CTM. Hartford Co., Farmington, Hill-Stead Museum, 20.vii.2004 (1 ♂), on blossoms of *Lythrum salicaria* L., 24.vii.2004 (1 ♂), on blossoms of *Lythrum salicaria*, MCT; West Hartford, Sunset Farm Road, 3.viii.2004 (1 ♂), MCT. Litchfield Co., Norfolk, Great Mountain Forest, 10.vii.2004 (1 ♀), on blossoms of *Asclepias syriaca* L., MCT. Middlesex Co., Haddam, Higganum Meadows Wildlife Area, 27.viii.2000 (1 ♀), on blossoms of *Solidago* sp., MCT [**first Connecticut record**]. New Haven Co., Conn. Agric. Exp. Sta., 123 Huntington Street, 23.vii.2001 (1 ♀), 19.vii.2002 (2 ♂). New London Co., Groton, Bluff Point Coastal Reserve, 24.viii.2004 (1 ♂), on blossoms of *Limonium carolinianum*, CTM; Voluntown, Pachaug State Forest, field along Erickson Wildlife Marsh, 17.vii.2004 (1 ♀), on blossoms of *Asclepias syriaca*, MCT.

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